

Docket No.: 2003P16866

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Before the Board of Patent Appeals and Interferences

Applic. No. : 10/590,138 Confirmation No.: 5733  
Inventor : Sebastian Obermanns  
Filed : August 22, 2006  
Title : Method, Intermediate Station and Central Control  
Unit for the Packet-Switched Data Transmission in a  
Self-Organizing Radio Network  
TC/A.U. : 2617  
Examiner : Amanuel Lebassi  
Customer No. : 24131

Hon. Commissioner for Patents  
Alexandria, VA 22313-1450

**BRIEF ON APPEAL**

Sir:

This is an appeal from the rejection in the Office action dated March 11, 2011, rejecting claims 10-20.

Appellants submit this *Brief on Appeal* without payment since the amount of \$540.00 to cover the fee for filing the *Brief on Appeal* had been paid when the prior *Brief on Appeal* was filed on October 21, 2010.

Real Party in Interest:

This application is assigned to Siemens Aktiengesellschaft of München, Germany. The assignment will be submitted for recordation upon the termination of this appeal.

Related Appeals and Interferences:

No related appeals or interference proceedings are currently pending which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Status of Claims:

Claims 10-20 are rejected and are under appeal. Claims 1-9 were cancelled.

Status of Amendments:

No claims were amended after the Office action.

Summary of the Claimed Subject Matter:

The subject matter of each independent claim is described in the specification of the instant application. Examples explaining the subject matter defined in each of the independent claims, referring to the

specification by page and line numbers, and to the drawings, are given below.

Independent claim 10 reads as follows:

A method for packet-switched data transmission in a self-organizing radio network with at least a first [page 7, line 12; 16QAM range, Fig. 2A] and a second [page 7, lines 13-14; 16QAM range, Fig. 2A] radio coverage area, and at least one mobile communication device [page 7, lines 13-15; CCx, CCy, Fig. 2A] for each radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A], which comprises:

operating a first central control device [page 7, lines 13-15; CCx, Fig. 2A] in the first radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A] and a second central control device [page 7, lines 13-15; CCy, Fig. 2A] in the second radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A], for centrally controlling an assignment of transmission channels assigned to the respective radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A];  
operating in each of the first and second radio coverage areas [page 7, lines 12-14; 16QAM range, Fig. 2A] mobile communication devices forming intermediate stations [page 8, line 20; FNX, Fig.

2A] for forwarding to the second radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A] data originating from the first radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A]; and

thereby operating the first central control device [page 7, lines 13-15; CCx, Fig. 2A] to control the transmission channels available to the first radio coverage area [page 7, lines 12-14; 16QAM range, Fig. 2A], both for transmitting data between the first central control device [page 7, lines 13-15; CCx, Fig. 2A] and the intermediate station [page 8, line 20; FNX, Fig. 2A] and for transmitting data between the intermediate station [page 8, line 20; FNX, Fig. 2A] and the second central control device [page 7, lines 13-15; CCy, Fig. 2A].

Independent claim 18 reads as follows:

An intermediate station [page 8, line 20; FNX, Fig. 2A] configured for carrying out the method according to claim 10.

Independent claim 19 reads as follows:

A central control device [page 7, lines 13-15; CCx, Fig. 2A] configured for carrying out the method according to claim 10.

Grounds of Rejection to be Reviewed on Appeal

1. Whether or not claims 10-19 are obvious over Gupta (US patent application publication No. 2004/0043782) in view of Yonge, III (US Patent No. 6,987,770) and further in view of Wiedman et al. (US Patent No. 5,634,190) under 35 U.S.C. § 103(a).

Argument:

Claims 10-19 are not obvious over Gupta in view of Yonge, III and

Wiedman

Claim 10

Claim 10 includes a step of: operating in each of the first and second radio coverage areas mobile communication devices forming intermediate stations for forwarding to the second radio coverage area data originating from the first radio coverage area.

The Examiner has stated that Gupta does not teach an intermediate station, but that Wiedman does teach an intermediate station. The

Examiner has alleged that it would have been obvious to have modified the invention of Gupta such that it includes an intermediate station.

However, even if the teaching in Gupta were modified to include the intermediate station taught by Wiedman, the invention as defined by claim 10 would not have been suggested because Wiedman does not teach that mobile communication devices form the intermediate stations. In contrast to claim 10, Wiedman teaches intermediate stations in the form of stationary relay stations 70.

Wiedman specifically teaches that one or more relay stations 70 are constructed at a fixed location in an overlap region 72 to relay signals (See Fig. 6 and column 10, line 67 through column 11, line 1). The relay station 70 is constructed in an overlap region 72 at an intermediate distance between gateway A and gateway B (See Fig. 7 and column 11, lines 55-65). Clearly, the relay stations are stationary and are not mobile.

Therefore, even if the teachings of Gupta, Yonge, III and Wiedman were combined, the invention as defined by claim 10 could not have been suggested for the reasons given above.

Additionally, appellant points out that claim 10 also includes a step of:

“thereby operating the first central control device to control the transmission channels available to the first radio coverage area, both for transmitting data between the first central control device and the intermediate station and for transmitting data between the intermediate station and the second central control device.”

Appellant believes this step of claim 10 is not taught by Gupta.

On page 3 of the Office action, the Examiner states that paragraph 44 of Gupta teaches the step of claim 10 copied immediately above. With reference to paragraph 44, the Examiner states that Gupta teaches: where a relay or intermediate device is configured to relay a plurality of messages associated with a plurality of other wireless communication

devices along a plurality of adaptive relay paths therefore transmitting data between the intermediate station and the second central control device.

Appellant believes that Gupta does not teach that the **first central control device** operates (=controls) the second central control device with respect to transmission channels. The only thing one of ordinary skill in the art is taught is that a path between the relay and the second central control device may be set-up **somehow**, because several relay paths exist. However, this does not in any way show **that messages or any other signals originating from the first central station are operating the second central control station in order to control which transmission channels are used**. Furthermore “*relay paths*” is a term in communication technology, which implies that data originating from a source is routed from mobile station to mobile station until it reaches the destination. Hence the cited parts of Gupta only disclose what happens in a higher communications layer (namely the “network layer”). This is a layer other than the one addressed by claim 10, since “transmission channels” is a term relating to the “physical layer”.



Appellant believes it is clear that Gupta does not teach the step of claim 10 that has been copied immediately above. Therefore, even if the teachings of Gupta, Yonge, III and Wiedman were combined, the invention as defined by claim 10 could not have been suggested because of this additional reason.

#### Claims 18 and 19

Claims 18 and 19 include the limitations of claim 10 and therefore would not have been suggested for the reasons given above with regard to claim 10.

The honorable Board is therefore respectfully urged to reverse the final rejection of the Primary Examiner.

If an extension of time is required for this submission, petition for extension is herewith made. Any fees due should be charged to Deposit Account No. 12-1099 of Lerner Greenberg Sterner LLP.

Respectfully submitted,

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Claims Appendix:

10. A method for packet-switched data transmission in a self-organizing radio network with at least a first and a second radio coverage area, and at least one mobile communication device for each radio coverage area, which comprises:

operating a first central control device in the first radio coverage area and a second central control device in the second radio coverage area, for centrally controlling an assignment of transmission channels assigned to the respective radio coverage area;

operating in each of the first and second radio coverage areas mobile communication devices forming intermediate stations for forwarding to the second radio coverage area data originating from the first radio coverage area; and

thereby operating the first central control device to control the transmission channels available to the first radio coverage area, both for transmitting data between the first central control device and the intermediate station and for transmitting data between the intermediate station and the second central control device.

11. The method according to claim 10, which comprises transmitting control data appended in the transmission with the first central control device on a separate transmission channel.

12. The method according to claim 11, wherein the separate transmission channel is an FCH channel.

13. The method according to claim 12, which comprises, if the FCH channel cannot be received by the second central control device, appending with the intermediate station control data for the second central control device to the data to be forwarded.

14. The method according to claim 10, which comprises adding to the control data at least one of an address of the second central control device and a format of the data to be forwarded.

15. The method according to claim 10, which comprises analyzing the control data in the intermediate station.

16. The method according to claim 10, which comprises analyzing the control data in the second central control device.

17. The method according to claim 10, which comprises operating the radio network using central medium access control in accordance with a standard selected from the group consisting of IEEE 802.11 standard, IEEE 802.16, Hiperlan/2, and a standard derived therefrom.

18. An intermediate station configured for carrying out the method according to claim 10.

19. A central control device configured for carrying out the method according to claim 10.

20. The method according to claim 10, wherein the intermediate station is part of the first radio coverage area and the second radio coverage area.

Evidence Appendix:

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or any other evidence has been entered by the Examiner and relied upon by appellant in the appeal.

Related Proceedings Appendix:

No prior or pending appeals, interferences or judicial proceedings are in existence which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Accordingly, no copies of decisions rendered by a court or the Board are available.